

## SOME ORCHIDS OF THE UPPER PEMIGEWASSET VALLEY.

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AT the southern entrance of the Franconia Notch, the Pemigewasset valley sends out a lateral branch to the east and one to the west. The eastern valley, which is broad and fertile, is drained by the east branch of the Pemigewasset River; the main branch of the river drains the notch itself and the western valley, which ramifies rapidly into smaller valleys and ravines, receives the waters of many brooks and streams draining an area of mountains covering thousands of acres.

Little is known of the plant life of the remoter mountain glades, and the little that is known has been gleaned chiefly by following the trails and from inference. There are scores of mountain meadows and deep ravines, which the botanist has never explored. The writer has spent considerable time tramping and camping in the forests which cover the mountains, and has enriched his collections by the addition of orchids, many of which are rare or unknown in the valley. The following notes on these plants taken from his memoranda in Gray's Manual may prove of interest to the readers of RHODORA.

1. *Aplectrum hiemale*, Nutt. On Jackman brook, in a hollow where ferns are abundant, July 7, 1894. I have found it but once since. Rare, local. .

2. *Corallorhiza innata*, R. Brown. In a mountain meadow, or bog, near the outlet to Russell pond on the summit of Russell mountain, not common.

3. *Corallorhiza multiflora*, Nutt. In the hemlock forest between Jackman brook and Crooked brook; very common along the latter.

4. *Spiranthes Romanzoffiana*, Cham. Same locality as No. 2, and occasionally met with in the mountain glades.

5. *Spiranthes gracilis*, Bigelow. This pretty orchid is very common in the sandy cart-roads and borders of fields along the Pemigewasset.

6. *Spiranthes cernua*, Richard. Same localities as No. 5.

7. *Goodyera tessellata*, Loddiges. This species is very common in the vicinity of the Agassiz basin; in glades and coniferous woods.

8. *Goodyera repens*, R. Br. var. *ophioides*, Fernald. Frequent from the head waters of the Lincoln and Franconia branches westward to the eastern slopes of the Kinsman mountains and Moosilauke.

9. *Pogonia ophioglossoides*, Nutt. Near Boy pond and Elbow pond, not common.

The *Habenarias* are well represented in this region and I meet most of the following species every season while tramping along the brooks.

10. *Habenaria tridentata*, Hook. Below the railroad bridge, abundant; frequent in the Pondfield meadows.

11. *Habenaria hyperborea*, R. Br. Likely to be met with anywhere in wet places on the slopes of the mountains forming the valley. At Beaver Falls, on the eastern slope of Moosilauke, I found hundreds of this stately plant in a wild, deep ravine on August 1, 1895, and I named one portion of the falls, "Orchid Falls."

12. *Habenaria dilata*, Gray. Frequent near Echo Lake and the Basin in the Notch.

13. *Habenaria Hookeri*, Torr. On the Warren road, amidst dense mats of *Linnaea borealis*. I have found it once in August, 1896, and once this year — only one specimen badly worm-eaten.

14. *Habenaria orbiculata*, Torr. Very common in old logging roads in the woods and deep forests; from two to a dozen are frequently found near each other.

15. *Habenaria fimbriata*, R. Br. This beautiful and showy orchid is common in the low grass lands along the river near thickets.

16. *Cypripedium pubescens*, Willd. Frequent in cold and shady bogs among the mountains.

17. *Cypripedium acaule*, Ait. Very abundant with *Epigaea repens* on the hillsides and ledges bordering the Pemigewasset.

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HYDRASTIS CANADENSIS, L. IN VERMONT. — Last June Mr. F. H. Horsford of Charlotte informed me that one of his collectors of bulbs had brought in specimens of *Hydrastis Canadensis*. On August 8, after Mr. Horsford had kindly given me the necessary directions, I visited the station, which is in the town of Shelburne, and found a colony of twenty-five or thirty plants, from which I ventured to take three specimens. This is apropos of Mr. Bissell's note in RHODORA, vol. I, p. 157, regarding the occurrence of this species in Connecticut. — EZRA BRAINERD, Middlebury, Vermont.